



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,089	03/16/2006	Jean-Yves Le Naour	PF030146	9287

24498 7590 10/31/2007  
THOMSON LICENSING LLC  
Two Independence Way  
Suite 200  
PRINCETON, NJ 08540

EXAMINER
----------

SAFAIPOUR, BOBBAK

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

10/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/572,089

Applicant(s)

LE NAOUR ET AL.

Examiner

Bobbak Safaipoor

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Action is in response to Applicant's response filed on 8/13/2007. **Claims 1-6** are still pending in the present application. **This action is made FINAL.**

#### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive.

In the present application, the Applicant argues that Ammar et al. fail to disclose a waveguide element having above its structure a cover depending on the frequency selected for the local oscillator, allowing transformation of the waveguide into a filtering guide.

The Examiner respectfully disagrees. The recited claim language is given the broadest reasonable interpretation. Ammar et al. disclose a housing assembly, including a cover, that mounts the various boards for functional interoperation. The frequency synthesizer board 52 is mounted against the opposing side of the housing mid-section 62b adjacent the cover 62c. The housing assembly 62 includes fasteners that are inserted into appropriate fastener locations 63 for holding the various sections together when assembled. Transmit and receive waveguide ports 62d, 62e are positioned in the cover 62c for transmitting and receiving respective wireless signals. (read as a waveguide element having above its structure a cover) (figure 2, paragraph 40). Ammar et al. further disclose that the cover 62c includes transmit and receive waveguide ports 62d, 62e that operatively connect to various MMIC chips using various circuit connection structures and techniques. (figure 4, paragraph 70) Shown in figure 2, the basic circuit components where the low frequency transmitter signal would be received from a modem in the indoor unit and into a diplexer 68 through an input/output port 68a, wherein bandpass filters 71

and 74 filters unwanted and spurious signals. (figure 2, paragraph 41) Ammar further discloses that on the receiver side, a waveguide transition 78 receives signals and forwards signals to a low noise amplifier 79 and bandpass filter 80 into a mixer 81 where the signal is mixed with a local oscillator signal generated from the frequency synthesizer circuit 52 to form an appropriate intermediate frequency along the receiver circuit chain 44 (read as allowing transformation of the waveguide into a filtering guide). This intermediate frequency signal is fed to the IF board 48 having a variable gain amplifier 82. The signal passes into a bandpass filter 82a and mixer 82b where the signal is mixed with a local oscillator signal generated from a local oscillator 83 as part of the frequency synthesizer circuit. (paragraph 42) As a result, the argued features are written such that they read upon the cited references; therefore, the previous rejection still applies.

As a result, the argued features are written such that they read upon the cited references; therefore, the previous rejection still applies.

#### ***Claim Objections***

On line 1 of claim 3, delete "one of" after "to".

On line 1 of claim 4, delete "one of" after "to".

On line 1 of claim 5, delete "one of" after "to".

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ammar et al (US Patent Application Publication #2004/0203528 A1) in view of Birleson et al. (US 2007/0182866 A1; hereinafter Birleson).**

Consider **claim 1**, Ammar et al disclose outdoor unit (abstract, paragraphs 39-49, figure 2) of a reception terminal including a return channel, wherein the return channel comprises: a transposition means (read as mixer) that transposes a signal to be transmitted using the signal

provided by the local oscillator (figure 2; paragraph 41; The signal is mixed at a mixer with the local oscillator), a wideband filtering means that allows through signals whose frequency corresponds to the transposed signal independently from the frequency of the local oscillator (paragraph 41; a band pass filter eliminates certain spurious frequencies and signals by appropriate filtering), and a waveguide element above its structure having a cover depending on the frequency selected for the local oscillator, allowing transformation of the waveguide into a filtering guide (paragraphs 11, and 40-42; the housing member further comprises a cover on which the waveguide parts are formed).

Ammar et al fail to disclose a local oscillator providing a signal with a frequency that can be selected from at least two frequencies.

In related art, Birleson discloses a local oscillator providing a signal with a frequency that can be selected from at least two frequencies. (figure 1, local oscillators 104 and 111; paragraph 53)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Birleson into the teachings of Ammar et al so that the local oscillator frequencies are selected so that the picture carrier of a particular channel in the RF signal will appear at 45.75 MHz in the second IF signal, although it is not limited to specific IF or LO frequencies.

Consider **claim 2**, and as applied to **claim 1** above, Ammar et al, as modified by Birleson, disclose the claimed invention wherein the waveguide cover transforms the waveguide

into a band rejector filter that rejects a bandwidth corresponding to a leak of the transposition frequency in the wideband. (Birleson: paragraphs 16-17)

Consider **claim 3**, and as **applied to claim 1 above**, Ammar et al, as modified by Birleson, disclose the claimed invention wherein the cover is either a flat cover, or a cover including slot-coupled resonant cavities. (Ammar et al: paragraph 90)

Consider **claim 4**, and as **applied to claim 1 above**, Ammar et al, as modified by Birleson, disclose the claimed invention wherein the waveguide comprises resonant cavities coupled by slots, and in that the cover is either a flat cover, or a cover comprising elements that electrically plug the slots. (Ammar et al: paragraph 11)

Consider **claim 5**, and as **applied to claim 1 above**, Ammar et al, as modified by Birleson, disclose the claimed invention wherein the local oscillator comprises means for selecting the oscillation frequency. (Birleson: figure 1; paragraph 53)

Consider **claim 6**, and as **applied to claim 5 above**, Ammar et al, as modified by Birleson, disclose the claimed invention wherein the means for selecting the oscillation frequency is either a manual switch or a command from an indoor unit or terminal. (Birleson: figure 1; paragraph 53)

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the



Art Unit: 2618

Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092.

The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lana Le can be reached on (571) 272-7891. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

  
Bobbak Safaipour  
B.S./bs

October 16, 2007

  
10-26-07  
LANA LE  
PRIMARY EXAMINER